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VERY BRIGHT METEOR OBSERVED MAY 20, 1892.

Mr. ZIEL writes from Alameda:—"On Friday night, May 20, at 9^h 30^m, I saw a bright meteor in the northwestern sky; it was *much* brighter than *Venus.*" [A diagram of its path is given: the body passed between *Castor* and *Pollux* going downwards in a direction towards *Venus.*]

RESIDUALS OF RECENT OBSERVATIONS OF μ^2 *HERCULIS.*

BY ARMIN O. LEUSCHNER.

Elements of μ^2 *Herculis* were published by Prof. CELORIA of the *Brera Observatory* at Milan in vol. cxxiii, no. 2949 of the *Astr. Nachr.*, giving a period of 40.65 years. Shortly after my own elements appeared in the *Publ. A. S. P.*, vol. ii, p. 46, the period being 45.39 years. The date of the last observations upon which these orbits are based is 1888.63 (SCHIAPARELLI) for the former and 1889.51 (BURNHAM) for the latter. Since then Prof. HALL, of the U. S. Naval Observatory, has published a series of measures in vol. x, no. 16, of the *Astronomical Journal*, covering the period from 1880 to 1891, and Prof. BURNHAM, of the Lick Observatory, has observed the companion regularly every year. It will be of considerable interest to know how the elements represent these observations. The residuals of some of Prof. HALL'S measures have already been printed with the elements, but of a few of them values were used in the determination of the elements which are slightly different from those last printed in the *Astronomical Journal.* For this reason as well as to keep these residuals together they have been recomputed and are included in the table below.

The very last observations seem to indicate that the periods arrived at are too short, although the period of 45 years cannot be much out. The discrepancies are not large enough to warrant an attempt at improvement of the elements at present, and as the motion is becoming less rapid now, probably several years will have to elapse before much can be gained by correcting the elements.

The residuals here given were obtained by comparison of the observations with an ephemeris computed for both orbits from the elements, the position-angles and distances being calculated for the beginning of each year. These residuals have a much higher degree of accuracy than those printed with the elements in *Publ. A. S. P.*, vol. ii, p, 47, which were obtained approximately from the interpolating curve.

The fourth and seventh columns below contain the corrections (*p*) for precession which must be added to the observed position-angles in the second column in order to reduce them to 1889.0 and 1888.0 to which dates the orbits are referred. The residuals are taken in the sense observation *minus* computation.

Places are predicted for both orbits up to 1895.0, the columns headed (*p*) giving the corrections to the observations for precession.

Prof. BURNHAM who kindly made his last set of measures at my request adds that *they are good observations and should represent the relative positions with fair accuracy.*

Astronomers will confer a favor upon me by communicating to me any unpublished measures of μ^2 *Herculis* which they may have in their possession, or by calling attention to other observations already published, but not included in the determination of either orbit.

EPOCH.	θ_0	ρ_0	CELORIA.			LEUSCHNER.			OBSERVER.
			p	$\theta_0-\theta_c$	$\rho_0-\rho_c$	p	$\theta_0-\theta_c$	$\rho_0-\rho_c$	
	°	″	°	°	″	°	°	″	
1880.654..	246.28	1.005	-0.05	-0.2	-0.08	+0.00	+0.9	-0.06	Hall.
1881.548..	249.08	1.008	-0.05	-2.1	-0.04	+0.01	-0.9	-0.02	Hall.
1882.524..	259.12	0.702	-0.04	+2.4	-0.29	+0.02	+3.6	-0.26	Hall.
1883.584..	262.93	0.663	-0.03	-1.0	-0.23	+0.02	+0.3	-0.21	Hall.
1884.643..	273.37	0.650	-0.03	+0.4	-0.13	+0.03	+1.6	-0.10	Hall.
1885.559..	288.03	0.610	-0.02	+4.7	-0.07	+0.03	+5.7	-0.04	Hall.
1886.596..	300.12	0.386	-0.01	+1.1	-0.20	+0.04	+1.5	-0.17	Hall.
1887.577..	321.47	0.423	-0.01	+3.1	-0.11	+0.05	+3.0	-0.09	Hall.
1888.634..	341.45	0.388	0.00	±0.0	-0.14	+0.05	-0.1	-0.13	Hall.
1889.51 ..	357.9	0.55	0.00	-0.8	-0.03	+0.06	-0.5	-0.03	Burnham.
1889.651..	0.62	0.345	0.00	-0.5	-0.25	+0.06	±0.0	-0.25	Hall.
1889.73 ..	359.1	0.52	0.00	-3.4	-0.08	+0.06	-2.8	-0.08	Burnham.
1890.38 ..	9.4	0.66	+0.01	-2.8	-0.01	+0.07	-1.8	-0.01	Burnham.
1890.552..	13.22	0.512	+0.01	-1.3	-0.18	+0.07	-0.1	-0.18	Hall.
1891.38 ..	18.5	0.72	+0.01	-5.3	-0.06	+0.07	-3.6	-0.07	Burnham.
1892.37 ..	28.8	0.89	+0.02	-3.3	-0.02	+0.08	-1.1	-0.02	Burnham.

Predicted Places.

EPOCH.	CELORIA, 1889.0.				LEUSCHNER, 1880.0.			
	θ	Diff.	p	ρ	θ	Diff.	p	ρ
	°		°	″	°		°	″
1892.00.....	29.31		+0.02	0.86	27.34		+0.08	0.86
		1.97				1.83		
.25.....	31.28			0.89	29.17			0.90
		1.83				1.70		
.50.....	33.11			0.92	30.87			0.93
		1.71				1.59		
.75.....	34.82			0.95	32.46			0.96
		1.61				1.49		
1893.00.....	36.43		+0.03	0.98	33.95		+0.08	0.99
		1.51				1.39		
.25.....	37.94			1.01	35.34			1.02
		1.42				1.31		
.50.....	39.36			1.04	36.65			1.05
		1.35				1.24		
.75.....	40.71			1.07	37.89			1.08
		1.29				1.17		
1894.00.....	42.00		+0.03	1.10	39.06		+0.09	1.11
		1.22				1.11		
.25.....	43.22			1.13	40.17			1.14
		1.15				1.05		
.50.....	44.37			1.15	41.22			1.17
		1.10				1.00		
.75.....	45.47			1.18	42 22			1.20
		1.07				0 97		
1895.00.....	46.54		+0.04	1.20	43.19		+0.09	1.23

BERKELEY, CAL., June 4th, 1892.

A REPETITION OF FOUCAULT'S PENDULUM EXPERIMENT.

By TORVALD KÖHL, of Denmark.*

On the 12th and 22d of April I made a public trial of FOUCAULT'S Pendulum Experiment in the Cathedral of Aarhus. The pendulum had a length of 21.1 metres (69.22 feet) and weighed 35 kilogrammes (77.17 lbs. avoirdupois), the cylinder being of lead. The steel wire was fastened above to an iron frame, in the upper part of which the end of a small cone served as the point of suspension of the pendulum; the cone resting in a depression made in an iron rod. The rod itself was placed across

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* Translated for the Society by F. R. ZIEL.